The present invention differs significantly from the disclosures of Ziert and Garcia-Rubio. It is a further adaptation of a continuous centrifuge process such as that described in Barrett et al. with significant advances which contribute to the efficient collection and recovery of microscopic particles such as oocysts of *Cryptosporidium* and cysts of *Giardia*. It should be noted that the present invention is novel and unobvious in that it incorporates a separation column operating within the centrifuge tubes which functions under the influence of a constant centrifugal force (2,000 X g), which separates and traps small particles from water flowing under centrifugal and gravitational forces.

The apparatus of Ziert was not tested with such small organisms, and its proposed use was the separation of larger parasite eggs from fecal material. In Ziert, the samples tested were 6 to 15 times larger than the oocyst material which has been shown to be separated from 20 liter or larger samples of water. Furthermore, the glass beads in Ziert were for the purpose of emulsifying fecal material. These beads were large (0.5 cm in diameter), and were not involved in the filtration process. Thus, even had a skilled artisan been motivated to combine the teachings of Ziert with those of Barrett (which it is submitted he would not), it would not have resulted in the present invention. Reconsideration and withdrawal of this portion of the rejection is respectfully requested.

Although Garcia-Rubio purports to detect oocysts of *Cryptosporidium* and cysts of *Giardia* in a stream of water, there is no description of filtration or recovery of the particulate matter. The detection procedure is accomplished by absorption spectra. It could be compared with methods for visualizing particles, but not for their filtration and recovery from large amounts of water. Reconsideration and withdrawal of this portion of the rejection are respectfully requested.

Claims 2-5 were rejected under 35 USC § 112, second paragraph as being indefinite. The Examiner indicated that the meaning of the expression "...graded glass beads of 120-50 µm and fine sand of 200-50 µm" was unclear. Applicants respectfully submit that the meaning of this expression would be clear to persons of skill in the art, as meaning beads or sand of a fairly uniform size within the diameter range specified. Reconsideration and withdrawal of the rejection is respectfully requested.

All objections and rejections having been addressed, it is submitted that the application is in condition for allowance, and Notice to that effect is respectfully requested.

Respectfully submitted,

CUSHMAN DARBY & CUSHMAN INTELLECTUAL PROPERTY GROUP OF PILLSBURY MADISON & SUTRO LLP

By

Ann S. Hobbs, Ph.D.

Reg. No. 36,830

Tel. No.: (202) 861-3063 Fax No.: (202) 861-0944

ASH/maf

1100 New York Avenue, N.W. Ninth Floor Washington, D.C. 20005-3918 (202) 861-3000